2/2 032 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124631

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE THEORETICALLY DERIVED EXPRESSION FOR THE DISSOCN. OF THE EXCITED STATE OF THE DONOR MOLS. IN THE PRESENCE OF ACCEPTOR MOLS., IN WHICH THE ENERGY TRANSFER OCCURS EITHER THROUGH A LONG DISTANCE MECHANISM (DIPOLE DIPOLE INTERACTION) OR THROUGH MOL. COLLISION (EXCHANGE INTERACTION), WAS STUDIED BY EXAMG. 3 PAIRS OF DONOR ACCEPTOR SYSTEMS IN SOLVENTS OF VARIOUS VISCOSITY. THE SYSTEMS: (A) DIPHENYL ETHER-CYCLOHEXANONE IN ETHYLENE GLYCOL AND (B) IN ETOH; (C) AND (D), RESP., DIPHENYL ETHER-2,5,DIPHENYLOXAZOLE IN THE SAME SOLVENTS; (E) 2,NAPHTHOL-1,3,5,TRIPHENYLPYRAZOLINE IN ACOET, (F) ETOH, AND (G) N,BUOH, OR (H), (J), AND (K), RESP., IN THESE SOLVENTS BUT PURGED WITH N. THE ABSORPTION SPECTRA, FLUORESCENCE SPECTRA, QUANTUM YIELDS, DONOR FLUORESCENCE DECAY AND QUENCHING, AND SENSITIZATION OF THE ACCEPTOR FLUORESCENCE WERE MEASURED, YIELDING VALUES FOR ACCEPTOR CONCNS. FOR HALFQUENCHING THE FLUORESCENCE AND DATA ON THE MECHANISM OF ENERGY TRANSFER. GOOD AGREEMENT OF THEORY WITH EXPT. WAS FOUND FOR A AND B, WHERE THE LONG TANGE MECHANISM DOES NOT CONTRIBUTE AND ALSO IN D WHERE THIS MECHANISM PREVAILS. FOR E-K THE COLLISION MECHANISM IS NEGLIGIBLE. GOOD AGREEMENT WITH EXPT. IS FOUND FOR E-J BUT NOT FOR G AND K. THIS COULD NOT BE EXPALINED. THE CONTRIBUTION OF BOTH MECHANISMS TO THE INITIAL QUENCHING CONST. IS DISCUSSED.

UNCLASSIFIED

1/2 032 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--ELECTRON EXCITATION ENERGY TRANSFER IN LIQUID SOLUTIONS. III -U-

AUTHOR-(05)-AGREST, M.M., ANDREYESHCHEV, YE.A., KILIN, S.F., RIKENGLAZ, M.M., ROZMAN, I.M.

COUNTRY OF INFO--USSR

A

SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(3), 625-31

DATE PUBLISHED ----70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--EXCITATION ENERGY, AROMATIC ETHER, CYCLOHEXANE, ETHYLENE GLYCOL, ETHANOL, SOLVENT ACTION, NAPHTHOL, ABSORPTION SPECTRUM, FLUORESCENCE SPECTRUM, ELECTRON DONOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0972 STEP NO--UR/0048/70/034/003/0625/0631

CIRC ACCESSION NO--AP0124631

UNCLASSIFIED

USSR UDC: 534.89

AGREST, E. M., KUZNETSOV, G. N., Acoustics Institute of the Academy of Sciences of the USSR, Moscow

"Drift of Gas Cavities in a Nonhomogeneous Acoustic Field"

Moscow, Akusticheskiy Zhurnal, Vol 18, No 2, Apr-Jun 72, pp 168-174

Abstract: Gas bubbles pulsate and undergo translational motion under the effect of an external pressure gradient in nonhomogeneous acoustic fields. Equations for rotational and translational motion of bubbles are analyzed simultaneously. The rate of translational motion is numerically and analytically determined as a function of the amplitude and nature of nonhomogeneity of the acoustic field, the radius of a bubble, and the parameters of the liquid. Consideration is given to the influence of translational motion on cavitation resistance, the rate of degasification of the liquid, and the size distribution of bubbles in the cavitation region.

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2/2 008 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0109692

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MORPHOLOGY OF TWO THERMOPHILIC STRAINS BELONGING TO THE GENUS MICROPOLYSPORA WAS STUDIED, I. E. MICROPOLYSPORA RECTIVIRGULA 1325 AND THERMOPOLYSPORA POLYSPORA A-94. BOTH ORGANISMS HAVE SIMILAR MYCELIUM STRUCTURE AND SPORE FORMATION. ELECTRON MICROSCOPY REVEALED THAT M. RECTIVIRGULA HAD THE STRUCTURE OF AERIAL MYCELIUM TYPICAL FOR ALL STUDIED RAY FUNGI. SPORES OF THE STUDIED CULTURE EXHIBITED PRONOUNCED POLYMORPHISM, THICK WALL (700-1000 A) CONSISTING OF TWO LAYERS AND MULTI LAYERED OUTER SHEATH. THE INNER STRUCTURE OF SPORES WAS THE SAME .S THAT OF HYPHAE AND SIMILAR TO THAT OF SPORES OF THE MAJORITY OF STUDIED ACTINOMYCETES.

ZZZZZZZZZZZ UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--A STUDY ON MORPHOLOGY OF TWO CULTURES BELONGING TO THE GENUS MICROPOLYSPORA -U-

AUTHOR--DOROKHOVA, L.A., AGRE, N.S., KALAKUTSKIY, L.V., KRASILNIKOV, N.A.

COUNTRY OF INFO--USSR

SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 1, PP 95-100

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--MORPHOLOGY, SPOR, FUNGUS, ACTINOMYCETES

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/1731 STEP NO--UR/0220/70/039/001/0095/0100

CIRC ACCESSION NO--AP0109692

ZZZZZZZZZZZZ UNCLASSIFIED

USSR UDC 576.852.1.094.3/095.1

ASLANYAN, R. R., AGRE, N. S., KALAKUTSKIY, L. V., and KIRILLOVA, I. P., Institute of Microbiology, Academy of Sciences USSR

"Thermostability of Actinomycetes Spores in Water, Air, and Hydrocarbons"

Moscow, Mikrobiologiya, No 2, 1971, pp 293-296

Abstract: The thermostability of Thermoactinomyces vulgaris 136, Actinomyces streptomycini B-6, and Actinomyces thermovulgaris 1915 spores in air was fairly high (120 to 130°C) regardless of the type of spore or the thermophilic nature of the microorganism. The medium in which the spores were heated markedly affected their thermostability. A. streptomycini B-6 spores tolerated a temperature of only 50°C in water, but remained viable in air even when heated to 120°C. A. thermovulgaris 1915 and T. vulgaris 136 spores were heat resistant in all media tested - water, air, mineral oil, and undecane. A high content of intracellular moisture tended to lower thermostability in A. streptomycini B-6 spores. Heating in undecane (but not in octane, pentadecane, or mineral oil) sharply reduced the maximum temperature tolerated by T. vulgaris 136 spores. The thermostability of these spores was higher in water than in air; the content of intracellular moisture had little influence in this respect.
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USSR

POZHARITSKAYA, L. M., et al., Mikrobiologiya, Vol 40, No 6, Nov/Dec 71, pp 1110-1111

suspension of activated spores from a water-alcohol solution and into that of nonactivated spores from a solvent that inhibits activation (glycerol or octane). The EPR spectrum corresponding to the suspension of activated spores exhibited two signals, one with $\tau \sim 10^{-8}$ sec and another with $\tau = 3 \times 10^{-9}$ sec, that was associated with radicals whose rotary motion was inhibited to a considerably lesser extent. Evidently two types of HS groups with different accessibility to radical I were present in the protein wall of the activated spores. The spectrum for the suspension of non-activated spores consisted of a triplet signal to which corresponded a rotary motion of I with $\tau = 2 \times 10^{-8}$ sec. The intensity of this signal was 5-7 times lower than that of the signal with the more inhibited rotation in the spectrum for the suspension of activated spores. This indicated that activation was accompanied by a considerable increase in the number of HS groups.

USSR

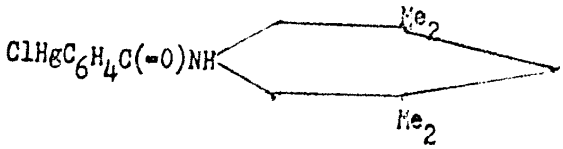
UDC 576.852.15.094.81.088.8

POZHARITSKAYA, L. M., KOL'TOVER, V. K., AGRE, N. S., and KALAKUTSKIY, L. V., Institute of Microbiology and Institute of Chemical Physics, Academy of Sciences USSR

"Activation of Spores of Thermoactinomyces vulgaris 2681 as Indicated by the Spin Tracer Method"

Moscow, Mikrobiologiya, Vol 40, No 6, Nov/Dec 71, pp 1110-1111

Abstract: Activation of spores of the actinomycete Thermoactinomyces vulgaris 2681, just like that of bacterial spores, is accompanied by the conversion of disulfide groups into thiol groups. In experiments on a suspension of nonactivated spores of T. vulgaris 2681 in glycerol with 14% sprouting spores and one of activated spores of this actinomycete in water with 90% sprouting spores, the relationship between activation and the formation of thiol groups was demonstrated by reacting these groups with the stable iminoxyl radical



(I) and then determining the EPR spectrum of the radical. The methods of cultivation and preparation of the suspensions have been described. Radical I was introduced into the

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USSR UDC 616.988.25-092.9-085.37:576.858.095.383]07:616.157-078

GAYDAMOVICH, S. Ya., and AGRBA, V. Z., Institute of Virology imeni D. I. Ivanovskiy, Academy of Medical Sciences USSR, Moscow

"The Effect of Interferon on Viremia During Arbovirus Infection"

Moscow, Voprosy Virusologii, No 5, Sep/Oct 70, pp 569-573

Abstract: A study was made of viremia in mice experimentally infected with Venezuelan equine encephalomyelitis virus. The higher susceptibility of suckling mice to this infection as compared to adult mice is reflected in higher viremia. The highest levels of viremia coincided with the maximum content of interferon in the blood. In absolute values, interferon production in suckling mice was lower than in adult mice, even though virus titers in the blood of suckling mice were much higher than in adults. Interferon was evidently unable to stop the development of viremia in suckling mice, but did affect viral reproduction in sensitive cells of adult mice. The deaths of adult animals from the infection may be attributable to a loss of the ability to produce interferon during that period of the infection when no antibodies have yet appeared.

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AGRAYEVA V.M.

MEDICINE

UDC 616.127-005.8-036.8

THE EFFECT OF MYOCARDIAL INFARCTION ON LIFE EXPECTANCY AND FITNESS FOR WORK

[Article by V.S. Volkov, V.M. Agrayeva, N.F. Korsakov, Intensive Cardiology Group (headed by Professor E.P. Kushelevskiy) of the RSFSR Ministry of Health at the Central Scientific Research Laboratory, chair of faculty therapy (headed by Professor S.S. Barats) and chair of public health organization (headed by Docent I.G. Vinogradov) of Sverdlovsk Medical Institute; Moscow, Sovetskoye Zdravookhraneniye, Russian, No 4, 1972, submitted 14 October 1971, pp 17-21]

Investigation of life expectancy and health status of individuals who have sustained myocardial infarction as well as different factors affecting the long range sequelae in such patients is both practically and socially significant. Of special interest is determination of residual fitness for work of patients with postinfarction cardiosclerosis. Such investigations could define the means of rehabilitating them.

We have the results of long term (12 years) observation of 525 patients who had sustained primary myocardial infarction. This constituted 89 percent of the patients discharged from the therapeutic section of the 14th municipal hospital in Sverdlovsk, which is the medical and health unit for the Ural Machinery Plant. Among the patients studied there were 395 men and 130 women. There were 386 who sustained myocardial infarction at under 60 years of age, and 376 were employed prior to illness. In 96 cases the followup extended over 10 years and for the rest the period was shorter.

Our data refer to the absolute majority of cases of myocardial infraction in one of the city's regions; the element of selectivity is ruled out and for this reason, we believe, it furnishes a rather realistic idea about long term sequelae.

One of the chief factors determining life expectancy of individuals who have sustained myocardial infarction is the patients' age. As indicated by most authors (O.I. Yasakova; A.N. Berinskaya et al.; S.L. Sidorovich; T.T. Glukhen'kiy and L.T. Bil'kevich; Weiss; Sigler, and others), the long term sequelae are the most favorable among patients who are young or middle aged, according to survival indices.

USSR UDC: 681.32.004

BEKKER, Ya. M., AGRANOVSKIY, V. L.

"Procedure for Manufacturing Integrated Ferrite Memory Elements"

USSR Author's Certificate No 251712, Filed 24 May 68, Published 19 Feb 70 (from RZh-Avtomatika, telemekhanika i vychislitelnaya tekhnika, No 9, Sep 70, Abstract No 9B215)

Translation: This Author's Certificate introduces a procedure for manufacturing integrated ferrite memory elements by compacting, sintering the plates, and cooling them; it is distinguished by the fact that in order to accelerate and improve the process the plates are cooled in a neutral gas environment at a pressure exceeding atmospheric.

1/1

USSR

UDC: 517.948.33

AGRANOVSKIY, M. L. and BAGLAY, R. D.

"Identifying the Characteristics of Objects Containing a Nonlinear Element"

Novosibirsk, Avtometriya, No 1, 1975, pp 74-78

Abstract: This paper is based in part on earlier papers which solved the problem of identifying an object consisting of one linear inertial and one nonlinear inertialess link. The present paper provides a solution for the problem of identifying the characteristics of the mathematical model for a special form of nonlinear object consisting of two linear inertial links separated by a nonlinear inertialess link. The initial information sets on the problem are the results of the signal measurement at the input and output of the object. The authors choose as their example of the physical object the powerful miniature devices produced in industry. The equivalent block diagram of such a device is shown. The problem of identification is solved under the assumption that the links of this equivalent system do not load one another. The stationary and transient states of such a system are considered.
1/1

USSR

AGRANOVSKIY, A. A., et al., "Spravochnik metallurga po tsvetnym metallam" (Metallurgist's Handbook of Non-Ferrous Metals), Moscow, Izd-vo "Metallurgiya," 1970, 320 pp

USSR

AGRANOVSKIY, A. A., et al., "Spravochnik metallurga po tsvetnym metallam" (Metallurgist's Handbook of Non-Ferrous Metals), Moscow, Izd-vo "Metallurgiya," 1970, 320 pp

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USSR

UDC 669.712.1.05

AGRANOVSKIY, A. A., BERKH, V. I., KAVINA, V. A., LEVIN, M. V., LYAPUNOV, A. N., MONTVID, A. E., MUNITS, I. N., and CHERNIN, V. N.

"Spravochnik metallurga po tsvetnym metallam" (Metallurgist's Handbook of Non-Ferrous Metals), Moscow, Izd-vo "Metallurgiya," 1970, 320 pp

Translation of Annotation: Data on the physico-chemical properties of the most important aluminum compounds and aluminum solutions are presented, phase diagrams of chemical systems determining the processes of alumina production by alkali methods are given, and standards and technical conditions are reviewed.

Various alumina production methods and reference data on the technology and equipment of alumina production are described.

The handbook is intended for engineers and technicians engaged in the aluminum industry. Ninety-one figures, 116 tables, 176 references.

TABLE OF CONTENTS (Abridged)

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USSR A UDC:

AGRANOVICH, V. M. and RYABOV, V. A.

"Effect of Shadow in Phase Transition"

Leningrad, Fizika Tverdogo Tela, Vol 12, No 1, January 1970, pp 256-263

Abstract: The authors study change in the shape of the shadow accompanying small deformation of a lattice and heat variation anisotropy which occur during shift-type phase transition in ferroelectric crystals. Behavior of the width of axial shadow is studied as a function of shift using a two-type atom chain model with alternating charges. Using the statistical testing method, the authors calculate the angular distribution function for fast ions scattered by the Ba—Ti chain in a nonsymmetric phase for a barium titanate crystal. The authors conclude that the experimentally observed shift in linear shadow is the result of its asymmetry evoked by the absence of charges in the shifted planes. Problems associated with the effect of heat variation anisotropy, present during transition to the nonsymmetric phase, on the shape of the axial shadow are discussed.

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2/2 040 UNCLASSIFIED PROCESSING DATE---20NOV70

CIRC ACCESSION NO--AP0118821

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE VARIATION OF THE FORM OF THE ION SCATTERING SHADOW PATTERNS DURING SMALL DEFORMATIONS OF THE LATTICE AND ANISOTROPY OF THERMAL VIBRATIONS WHICH ACCOMPANIED PHASE TRANSITIONS OF THE DISPLACEMENT TYPE IN FERROELECS. WERE STUDIED. IN TERMS OF THE MODEL OF A CHAIN ATOMS OF 2 KINDS WITH ALTERNATING CHARGES, THE BEHAVIOR OF THE WIDTH OF THE AXIAL SHADOW DEPENDING ON THE MAGNITUDE OF SHIFT WAS CONSIDERED. A STATISTICAL CALCN. WAS MADE OF THE ANGULAR DISTRIBUTION OF FAST IONS SCATTERED BY A CHAIN OF BA, TI IN A NONSYM. PHASE FOR BATIO SUB3 CRYSTAL. THE EXPTL. OBSD. SHIFT OF THE LINEAR SHADOW IS A CONSEQUENCE OF ITS ASYMMETRY PRODUCED BY A DIFFERENCE IN CHARGES IN THE SHIFTED PLANES. THE PROBLEM WAS ALSO CONSIDERED OF THE EFFECT OF THE ANISOTROPY OF THERMAL VIBRATIONS, PRODUCED IN THE TRANSITION INTO A NONSYM. PHASE, ON THE SHAPE OF THE AXIAL SHADOW.

UNCLASSIFIED

1/2 040 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--SHADOW EFFECT DURING PHASE TRANSITIONS -U-

AUTHOR-(02)-AGRANOVICH, V.M., RYABOV, V.A.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(1), 260-3

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--FERROELECTRIC MATERIAL, ION THEORY, SHADOW ZONE, CRYSTAL LATTICE DEFORMATION, ANISOTROPY, THERMAL EFFECT, VIBRATION, PHASE TRANSITION, ANGULAR DISTRIBUTION, BARIUM TITANATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1857 STEP NO--UR/0181/70/012/001/0260/0263

CIRC ACCESSION NO--AP0118821

UNCLASSIFIED

AGRANOVICH, V. M. and GINZBURG, V. L., Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 61, No 3, September 1971, pp 1243-1253

graphically. Finally, the third section is concerned with combination scattering of light by surface polaritons. Here also the authors support their findings by the use of equations and a graphic illustration. The problem of surface excitons is of interest both in studying certain mechanisms of superconductivity and in studying collective exciton effects. The article contains 2 illustrations and 18 bibliographic entries.

USSR

AGRANOVICH, V. M. and GINZBURG, V. L., Institute of Spectroscopy, Academy of Sciences USSR and Institute of Physics imeni P. N. Lebedev, Academy of Sciences USSR

"Theory of Combination Scattering of Light With the Formation of Polaritons (Real Excitons)"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 61, No 3, September 1971, pp 1243-1253

Abstract: The authors discuss the question of combination scattering of light with the formation of polaritons (real excitons) in using this method for obtaining information concerning the dispersion curves by allowing for absorption and spatial dispersion. They pay special attention to the detection of "new" waves as well as to the scattering by surface polaritons. The classical method of studying excitons is to obtain the absorption spectra. In this article the authors first discuss the combination scattering of light with the formation of excitons using a mathematical treatment. The second part of the article involves combination scattering and a "new" wave in gyrotropic crystals, the findings of which are supported mathematically and

USSR

AGRANOVICH, V. M., MEKHTIYEV, M. A., Fizika Tverdogo Tela, Vol 13, No 9, Sep 71, pp 2732-2742

concentrations may lead to pairing of electrons and, accordingly, to the development of superconductivity. However, the effect may be inhibited by exciton decay accompanied by the decay of Cooper pairs. This process may be insignificant if the lifetime of an exciton is determined by radiation decay rather than by the nonradiative transition accompanied by the excitation of electron-hole pairs. The authors thank V. L. Ginzburg and the members of his seminar for constructive criticism. One figure, bibliography of thirteen titles.

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USSR

AGRANOVICH, V. M., MEKHTIYEV, M. A., Institute of Spectroscopy, Academy of Sciences of the USSR, Akademgorodok, Podol'skiy Rayon, Moskovskaya Oblast

"Spectra of Organic Molecules Introduced Into a Metallic Matrix, and the Exciton Mechanism of High-Temperature Superconductivity"

Leningrad, Fizika Tverdogo Tela, Vol 13, No 9, Sep 71, pp 2732-2742

Abstract: The authors consider renormalization of the spectrum and quenching of excitons resulting from the effect of interaction between excitons and metal conduction electrons. They also discuss the spectrum of an organic impurity molecule introduced into a metallic matrix. It is shown that in the absorption spectrum of these systems absorption lines corresponding to the simultaneous excitation of the organic molecules and the metallic matrix can be observed in addition to the absorption lines corresponding to excitation of the organic molecules alone. Electron-electron interaction at high exciton concentrations is investigated. The case of laminar organometallic media is also discussed. It is shown that under certain conditions effective interelectron interaction at high exciton

USSR

UDC: 621.372.413.001.24

FROLOV, V. N., AGRONOV, V. M.

"Construction of Interstage SHF Circuits With Optimum Frequency Response"

Tr. Novosib. elektrotekhn. in-ta (Works of the Novosibirsk Electrical Engineering Institute), 1970, vyp. 2, kn. 1, pp 78-89 (from RZh-Radiotekhnika, No 6, Jun 70, Abstract No 6B160)

Translation: Basic relationships are derived for calculating interstage SHF circuits by the Cohn method, which is based on the introduction of inverting circuits so that all resistors can be reduced to a common type (such as parallel). The resultant expressions can be used to design a complete interstage circuit with Chebyshev or Butterworth characteristics. Eight illustrations, bibliography of four titles. N. S.

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AGRANOV, D. M., RYBNIKOV, S. I., USSR Author's Certificate No 254900

sultant quotient is multiplied by the output signal of the auxiliary element. The output signal from the multiplier is sent to the input of the amplifier, causing a further displacement of the distributor slide valve, which compensates for pressure oscillations in the supply line. One illustration. N. S.

2/2

USSR UDC: 62-83-82

AGRANOV, D. M., RYBNIKOV, S. I.

"An Electrohydraulic Throttling Device"

USSR Author's Certificate No 254900, filed 26 Jul 67, published 9 Mar 70 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, Nov 70, Abstract No 11A205 P)

Translation: This Author's Certificate introduces an electrohydraulic choking device which contains an electronic amplifier, an electromechanical converter, and a hydraulic amplifier connected in series. To improve the dynamic and static characteristics, there is a device for setting the rated pressure in the supply line, a slide-valve displacement indicator, pressure pickups before and after the throttling element which controls the hydraulic amplifier, and special connections between the elements of the device. When there is a change in pressure in the supply line, the pressure pickup signal is compared with the signal from the pressure setting device. The signal difference is converted in an auxiliary element whose transfer function is the inverse of that which relates displacement of the distributor slide valve to the input signal. The pickup signal is divided by the difference between the signals from the pressure setting device and the pickup. The re-

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2/2 012 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0123983

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDIES WERE CARRIED OUT TO INVESTIGATE POSSIBILITIES OF USING NATIONAL SCREW CENTRIFUGES (NOGSH-325) FOR TREATMENT OF SEWAGE SEDIMENTS. IN A SEMI PRODUCTIONAL UNIT, THE PROCESS OF CENTRIFUGATION OF A WET SEDIMENT OF SEWAGE FROM THE PRIMARY SETTLER WAS STUDIED, ONE OF TWO EXPERIMENTAL PRODUCTION UNITS WAS USED TO STUDY THE PROCESS OF CENTRIFUGATION OF ACTIVE SILT, THE OTHER, THE PROCESS OF CENTRIFUGATION OF FERMENTED SEDIMENT FROM EMSCHERIAN. CENTRIFUGATION WAS FOUND NOT TO DESTROY ASCARID EGGS PRESENT IN THE INITIAL PRODUCT BOTH IN EARLY STAGES OF DEVELOPMENT AND IN THE STAGE OF INVASIVE LARVAE. DEPENDING UPON THE COMPOSITION OF THE INITIAL PRODUCT, FROM 5 TO 50PERCENT OF ASCARID EGGS WENT TO THE FUGATE, THE REMAINING PORTION CONCENTRATING IN THE CAKE. THE LATTER MUST BE SUBJECTED TO DEHELMINTHIZATION, AND THE FUGATE MUST BE RETURNED TO PURIFICATION UNITS. FACILITY: OTDEL MEDITSINSKOY GEL'MINTOLOGII INSTITUTA MEDITSINSKOY PARAZITOLOGII I TROPICHESKOY MEDITSINY IM. YE. I. MARTSINOVSKOGO MZ SSSR, SEKTOR VODOSNADZHENIYA I OCHISTKI VODY, AKADEMII KOMMUNAL'NOGO KHOZYAYSTVA IM. PAMFILOVA.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--SANITARY HELMINTHOLOGICAL EVALUATION OF THE METHOD OF CENTRIFUGATION OF URBAN SEWAGE SEDIMENTS -U-

AUTHOR-(02)-KEBINA, V.YA., AGRANONIK, R.YA.

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA PARAZITOLOGIYA I PARAZITARNYYE BOLEZNI, 1970, VOL 39, NR 3, PP 311-315

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PARASITE, SANITATION, WASTE TREATMENT, CENTRIFUGE/(U)NOGSH325 CENTRIFUGE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0216 STEP NO--UR/0358/70/039/003/0311/0315

CIRC ACCESSION NO--AP0123983

UNCLASSIFIED

USSR

KUZ'MINA, V. N., and AGRANENKO, V. S., All Union Scientific Research Institute of Physical Culture

"Study of the Functional State of Skilled Gymnasts During Training in Medium-Altitude Mountains"

Moscow, Teoriya i Praktika Fizicheskoy Kul'tury, No 10, Oct 70, pp 30-33

Abstract: A group of 24 male and female gymnasts from Moscow trained on a mountain about 2,000 m above sea level for a competition. Prior to their departure from Moscow and periodically after arrival at the mountain, they underwent a series of examinations which included a general physical exam: neurological, EKG, blood and urine analyses; muscle tone, visual, motor, and vestibular tests; and determination of adaptability to physical loads. Most of the gymnasts voiced various complaints during the first week of acclimatization including fatigue, dyspnea, insomnia, headaches, and poor coordination of movements. The results of the clinical and biochemical tests were far below the base line values. However, by the end of the second week improvement was noted in the coordination tests, muscle tone, CNS function, hematological indices, and adaptability of the cardiovascular system to loads. In the third week the various indices were the same as in Moscow.

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AA0040732 A ... UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3-70

235961 GRANULAR RESIN SEPARATION from emulsion is ensured by mixing the cooling agent with the hot emulsion directing the former at an angle to the flow. The feed should maintain a temp of 20-40°C at the end of the mixing process. 16.12.66. as 1119962/23-5, GEL'PERIN, N.I. et al. (13.6.69) Bul. 6/24.1.69 Class 39a[1], 39b, Int. Cl B 29b, C 08g.

LD

AUTHORS: Gel'perin, N. I.; Tumanskiy, A. S.; Agranenko, S. A.; and Grigorchuk, G. N.

19750389

2/2 028 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120435

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MICROSCOPIC EXAMN. OF POLY(ME METHACRYLATE) (I) SAMPLES IRRADIATED WITH A LASER BEAM (LAMBDA EQUALS 1.06 MU) AT AN AGLE OF 45DEGREES OR 90DEGREES, SUGGESTED THAT THE STRESS APPLIED ON I (0-300 KG-CM PRIME2) FACILITATED THE OPENING OF MICROPORES AND FORMATION OF SUBMICROSCOPIC CRACKS WHICH, IN TURN, INITIATED FURTHER CRACKING AND EVENTUAL BREAKDOWN OF I. FACILITY: INST. PROBL. MEKH., MOWCOW, USSR.

UNCLASSIFIED

1/2 028 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--VISIBLE CRACK FORMATION SITES INITIATED BY LASER BEAMS -U-

AUTHOR-(04)-AGRANAT, M.B., NOVKOV, N.P., YUDIN, YU.I., YAMPOLSKIY, P.A.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(3), 924-7

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--LASER BEAM LESION, CRACK PROPAGATION, POLYMETHYLMETHACRYLATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1723 STEP NO--UR/0181/70/012/003/0924/0927

CIRC ACCESSION NO--AP0120435

UNCLASSIFIED

2/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0119369

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATION OF THE SIZE, LOCATION, STRUCTURE, AND PROPERTIES OF MICRODEFECTS IN POLYMERS WHICH ACT AS CENTERS OF DISK SHAPED DESTRUCTIVE CRACKS INDUCED IN THESE MATERIALS BY LASER IRRADIATION. IRRADIATED TRANSPATENT DIELECTRICS INCLUDING POLYMETHYLMETHACRYLATE, POLYSTYRENE, AND POLYCARBONATE ARE CONSIDERED, AND THE EXPERIMENTAL PROCEDURE IS DESCRIBED. THE EXPERIMENTAL RESULTS SUGGEST THAT THE MICRODEFECT NUCLEI ARE MICROPORES OF THE EXAMINED MATERIALS. FACILITY: AKADEMIIA NAUK SSSR, INSTITUT PROBLEM MEKHANIKI. MOSCOW, USSR.

UNCLASSIFIED

1/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--POLYMER MICRODEFECTS AS THE CENTRES OF DESTRUCTIVE CRACKS INDUCED BY LASER IRRADIATION -U-

AUTHOR-(05)-AGRANAT, M.B., CHERNIAVSKIY, F.N., NOVIKOV, N.P., SALUENIA, S.S., LAMPOLSKIY, P.A.

COUNTRY OF INFO--USSR

SOURCE--NATURE, VOL. 226, APR. 25. 1970, P. 349-351

DATE PUBLISHED--25APR70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--LASER RADIATION, CRACK PROPAGATION, DIELECTRIC MATERIAL, POLYMETHYLMETHACRYLATE, POLYSTYRENE RESIN, POLYCARBONATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0433 STEP NO--UK/0000/70/226/000/0349/0351

CIRC ACCESSION NO--AP0119369

UNCLASSIFIED

USSR UDC 621.762.2

AGRANAT, B. A., KONTOROVICH, L. Ye., NOVIKOV, N. I.

"Use of Ultrasound for Dispersion of Metal Oxide Powders"

Primeneniye Ul'trazvuka v Metallurg. Protsessakh [Use of Ultrasound in Metallurgical Processes -- Collection of Works], Moscow, 1972, pp 142-145, (Translated from Referativnyy Zhurnal, Metallurgiya, No 5, 1972, Abstract No 5 G478 by the authors).

Translation: The possibility is studied of dispersion of oxides of Al, Hf, Y, Zr, and Th using a type UZVD-6 US installation, operating under conditions of high static pressure. The powders produced were used as a hardening phase in heat-resistant alloys based on carbonyl Ni. The dispersed Hf oxide powders facilitate increased long-term heat resistance of dispersion-hardened alloys to the greatest degree.

1/1

Acc. Nr: AP0055928 Abstracting Service: CHEMICAL ABST. 6/70 Ref. Code: UR0079

116457v **Luminescence of azomethine salts.** Agracheva, E. B.; Gachkovskii, V. F. (Mosk. Tekst. Inst., Moscow, USSR). *Zh. Obshch. Khim.* 1970, 40(1), 191–4 (Russ). The luminescence of azomethines with a non-rigid skeleton is greatly enhanced by salt formation owing to increased mol. coplanarity. The salt formation may involve up to 4 moles HCl. The luminescence characteristics are reported for *p*-$RC_6H_4CH{:}NC_6H_4R^1$-*p*nHCl (R, R^1 and n given): H, H, *1;* H, Me_2N, *1;* H, Me_2N, *2;* Me_2N, H, *1;* Me_2N, H, *2;* Me_2N, H, *3;* Me_2N, CO_2H, *2;* Me_2N, CO_2H, *4;* Me_2N, CO_2Me, *1;* Me_2N, CO_2Me, *2;* Me_2N, CO_2Et, *1;* Me_2N, CO_2Et, *2;* Me_2N, CO_2Pr, *1;* Me_2N, CO_2Pr, *2;* Me_2N, CO_2Bu, *1;* H, HO, *1;* HO, H, *2;* HO, HO, *2;* H, MeO, *1;* MeO, H, *1;* MeO, MeO, *1;* HO, CO_2H, *3;* MeO, CO_2H, *2;* HO, CO_2Me, *2;* MeO, CO_2Et, *1;* Me_2N, NO_2, *1;* HO, NO_2, *2;* MeO, NO_2, *2;* NO_2, HO, *1;* O_2N, MeO, *1;* O_2N, Me_2N, *1.*

G. M. Kosolapoff

1/1

fm 1

REEL/FRAME
19841257

USSR

SMIRNOV, YE. A., et al., Zhurnal Obshchey Khimii, Vol 40, No 2, Feb, 70, pp 375-379

Series A: X = 4-OH; series B: X = 5-OH; series C: X = 4-OCH_3; series D: X = 5-OCH_3. R = alkyls of normal structure from C_1 to C_8 inclusive.

It was found that introduction of an additional electron-donor group into position 4 or 5 of the aldehyde component results in a sharp decrease in luminescence intensity. It is suggested that the principal reason for this is the transformation of the quasiquinoid structure characteristic of most esters of salicylidene-p-aminobenzoic acid into a benzenoid structure.

2/2

USSR

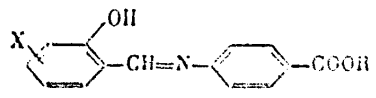
UDC: 547.574 - 570

SMIRNOV, YE. A., AGRACHEVA, YE. B., and GACHKOVSKIY, V. F., Moscow Textile Institute, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR, and Institute of Chemical Physics, Moscow, Academy of Sciences USSR

"Structure and Luminescence of Salicylidene-p-aminobenzoic Acid Esters With Additional Electron-Donor Group in Aldehyde Component"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 375-379

Abstract: The authors undertook to ascertain how luminescence intensity is affected by the introduction of typical electron-donor groups (H, OCH_3) into the nucleus of the aldehyde component of salicylidene-p-aminobenzoic acid esters. Four series of compounds were synthesized for this purpose, corresponding to the general formula



1/2

Luminescence

USSR

UDC: 547.639

AGRACHEVA, YE. B., KUZNETSOVA, T. A., and YERSHOV, YU. A., Moscow Textile Institute, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Relationship Between Structure and Luminescence of Azomethines, Derivatives of 4,4-Diaminostilbene and 4,4-Diaminobibenzyl"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 370-382

Abstract: For purposes of elucidating the effect of conjugation on the luminescence of azomethines, the authors synthesized and studied two series of azomethines, viz. derivatives of 4,4'-diaminostilbene and 4,4'-diaminobibenzyl (including 10 azomethines obtained for the first time). It was found that the principal factor causing luminescence in the stilbene series is conjugation, while in the bibenzyl series the luminescence is due to the presence of a quasiquinoid structure. The introduction of haloatoms into the aldehyde component makes the difference in the luminescence intensity of the corresponding representatives of the two series less sharp, since there is a decrease in the strength of the quasiquinoid structure in these cases, and the system conjugation has a greater effect on luminescence.

1/1

USSR

AGRACHEVA, YE. B. and VIMENSKAYA, T. A., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2526-2531

X and Y formed the following pairs: donor-acceptor, acceptor-donor, donor-donor, and acceptor-acceptor in each series. The strongest bands were seen when X was a donor, that is for the combinations of donor-acceptor and donor-donor. The conjugation of the overall system was increased only by the increase in the conjugation of the amine part. Increase in the conjugation in the aldehyde part did not influence the overall conjugation of the molecule. The IR spectra are shown for each of the 16 compounds and the physical properties are given for those azomethines not previously described in the literature.

2/2

UDC 547.574.44537.37

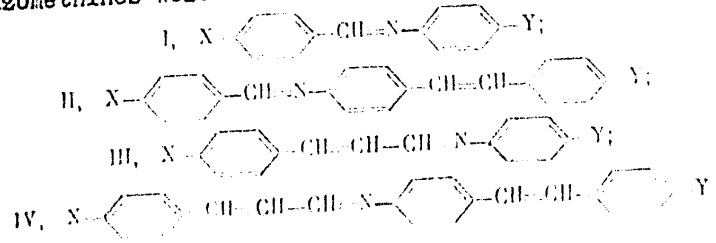
USSR

AGRACHEVA, YE. B. and VIMENSKAYA, T. A., Moscow Textile Institute

"The Effects of Conjugation on the Luminosity of Azomethines. II"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2526-2531

Abstract: The absorption and lumnescent spectra of the following four series of azomethines were studied



where X and Y are electron donor and electron acceptor groups, such as NO_2 CH_3O and $(CH_3)_2$. Four compounds in each series were prepared such that

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2/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0119369

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATION OF THE SIZE, LOCATION, STRUCTURE, AND PROPERTIES OF MICRODEFECTS IN POLYMERS WHICH ACT AS CENTERS OF DISK SHAPED DESTRUCTIVE CRACKS INDUCED IN THESE MATERIALS BY LASER IRRADIATION. IRRADIATED TRANSPATENT DIELECTRICS INCLUDING POLYMETHYLMETHACRYLATE, POLYSTYRENE, AND POLYCARBONATE ARE CONSIDERED, AND THE EXPERIMENTAL PROCEDURE IS DESCRIBED. THE EXPERIMENTAL RESULTS SUGGEST THAT THE MICRODEFECT NUCLEI ARE MICROPORES OF THE EXAMINED MATERIALS. FACILITY: AKADEMIIA NAUK SSSR, INSTITUT PROBLEM MEKHANIKI. MOSCOW, USSR.

UNCLASSIFIED

1/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--POLYMER MICRODEFECTS AS THE CENTRES OF DESTRUCTIVE CRACKS INDUCED BY LASER IRRADIATION -U-

AUTHOR-(05)-AGRANAT, M.B., CHERNIAVSKIY, F.N., NOVIKOV, N.P., SALUENIA, S.S., LAMPOLSKIY, P.A.

COUNTRY OF INFO--USSR

SOURCE--NATURE, VOL. 226, APR. 25. 1970, P. 349-351

DATE PUBLISHED--25APR70

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CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0433 STEP NO--UK/0000/70/226/000/0349/0351

CIRC ACCESSION NO--AP0119369

UNCLASSIFIED

USSR

UDC 621.762.2

AGRANAT, B. A., KONTOROVICH, L. Ye., NOVIKOV, N. I.

"Use of Ultrasound for Dispersion of Metal Oxide Powders"

Primeneniye Ul'trazvuka v Metallurg. Protsessakh [Use of Ultrasound in Metallurgical Processes -- Collection of Works], Moscow, 1972, pp 142-145, (Translated from Referativnyy Zhurnal, Metallurgiya, No 5, 1972, Abstract No 5 G478 by the authors).

Translation: The possibility is studied of dispersion of oxides of Al, Hf, Y, Zr, and Th using a type UZVD-6 US installation, operating under conditions of high static pressure. The powders produced were used as a hardening phase in heat-resistant alloys based on carbonyl Ni. The dispersed Hf oxide powders facilitate increased long-term heat resistance of dispersion-hardened alloys to the greatest degree.

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Acc. Nr: AP0055928 Abstracting Service: CHEMICAL ABST. 6/70 Ref. Code: UR0079

116457v Luminescence of azomethine salts. Agracheva, E. B.; Gachkovskii, V. F. (Mosk. Tekst. Inst., Moscow, USSR). *Zh. Obshch. Khim.* 1970, 40(1), 191–4 (Russ). The luminescence of azomethines with a non-rigid skeleton is greatly enhanced by salt formation owing to increased mol. coplanarity. The salt formation may involve up to 4 moles HCl. The luminescence characteristics are reported for *p*-$RC_6H_4CH{:}NC_6H_4R^1$-*p*nHCl (R, R^1 and n given): H, H, *1*; H, Me_2N, *1*; H, Me_2N, *2*; Me_2N, H, *1*; Me_2N, H, *2*; Me_2N, H, *3*; Me_2N, CO_2H, *2*; Me_2N, CO_2H, *4*; Me_2N, CO_2Me, *1*; Me_2N, CO_2Me, *2*; Me_2N, CO_2Et, *1*; Me_2N, CO_2Et, *2*; Me_2N, CO_2Pr, *1*; Me_2N, CO_2Pr, *2*; Me_2N, CO_2Bu, *1*; H, HO, *1*; HO, H, *2*; HO, HO, *2*; H, MeO, *1*; MeO, H, *1*; MeO, MeO, *1*; HO, CO_2H, *3*; MeO, CO_2H, *2*; HO, CO_2Me, *2*; MeO, CO_2Et, *1*; Me_2N, NO_2, *1*; HO, NO_2, *2*; MeO, NO_2, *2*; NO_2, HO, *1*; O_2N, MeO, *1*; O_2N, Me_2N, *1*.

G. M. Kosolapoff

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fm 7

REEL/FRAME
19841257

USSR

SMIRNOV, YE. A., et al., Zhurnal Obshchey Khimii, Vol 40, No 2, Feb. 70, pp 375-379

Series A: X = 4-OH; series B: X = 5-OH; series C: X = 4-OCH_3; series D: X = 5-OCH_3. R = alkyls of normal structure from C_1 to C_8 inclusive.

It was found that introduction of an additional electron-donor group into position 4 or 5 of the aldehyde component results in a sharp decrease in luminescence intensity. It is suggested that the principal reason for this is the transformation of the quasiquinoid structure characteristic of most esters of salicylidene-p-aminobenzoic acid into a benzenoid structure.

2/2

A

UDC: 547.574 - 570

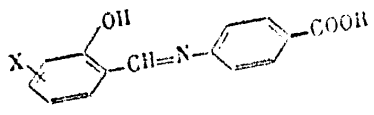
USSR

SMIRNOV, YE. A., AGRACHEVA, YE. B., and GACHKOVSKIY, V. F., Moscow Textile Institute, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR, and Institute of Chemical Physics, Moscow, Academy of Sciences USSR

"Structure and Luminescence of Salicylidene-p-aminobenzoic Acid Esters With Additional Electron-Donor Group in Aldehyde Component"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 375-379

Abstract: The authors undertook to ascertain how luminescence intensity is affected by the introduction of typical electron-donor groups (H, OCH_3) into the nucleus of the aldehyde component of salicylidene-p-aminobenzoic acid esters. Four series of compounds were synthesized for this purpose, corresponding to the general formula



1/2

Luminescence

USSR

UDC: 547.639

AGRACHEVA, YE. B., KUZNETSOVA, T. A., and YERSHOV, YU. A., Moscow Textile Institute, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Relationship Between Structure and Luminescence of Azomethines, Derivatives of 4,4-Diaminostilbene and 4,4-Diaminobibenzyl"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 379-382

Abstract: For purposes of elucidating the effect of conjugation on the luminescence of azomethines, the authors synthesized and studied two series of azomethines, viz. derivatives of 4,4'-diaminostilbene and 4,4'-diaminobibenzyl (including 10 azomethines obtained for the first time). It was found that the principal factor causing luminescence in the stilbene series is conjugation, while in the bibenzyl series the luminescence is due to the presence of a quasiquinoid structure. The introduction of haloatoms into the aldehyde component makes the difference in the luminescence intensity of the corresponding representatives of the two series less sharp, since there is a decrease in the strength of the quasiquinoid structure in these cases, and the system conjugation has a greater effect on luminescence.

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USSR

AGRACHEVA, YE. B. and VIMENSKAYA, T. A., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2526-2531

X and Y formed the following pairs: donor-acceptor, acceptor-donor, donor-donor, and acceptor-acceptor in each series. The strongest bands were seen when X was a donor, that is for the combinations of donor-acceptor and donor-donor. The conjugation of the overall system was increased only by the increase in the conjugation of the amine part. Increase in the conjugation in the aldehyde part did not influence the overall conjugation of the molecule. The IR spectra are shown for each of the 16 compounds and the physical properties are given for those azomethines not previously described in the literature.

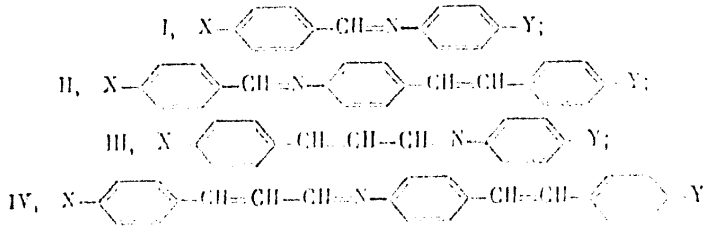
USSR UDC 547.574.4+537.37

AGRACHEVA, YE. B. and VIMENSKAYA, T. A., Moscow Textile Institute

"The Effects of Conjugation on the Luminosity of Azomethines. II"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2526-2531

Abstract: The absorption and lumnescent spectra of the following four series of azomethines were studied



where X and Y are electron donor and electron acceptor groups, such as NO_2CH_3O and $(CH_3)_2$. Four compounds in each series were prepared such that

1/2

2/2 014 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0112563

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. MIXING OF 2 MOLES OF APPROPRIATE ALDEHYDE WITH 1 MOLE AMINE IN HOT ETOH GAVE THE CORRESPONDING AZOMETHINES WHOLE LUMINESCENCE SPECTRA WERE REPORTED. THE MAIN FACTOR DETG. THE LUMINESCENCE IN THIS GROUP OF COMPDS. IS THE EXISTENCE OF QUASICUINOID STRUCTURE. INCREASING THE DEGREE OF POSSIBLE CHAIN CONJUGATION IN MOST CASES DECREASES THE INTENSITY OF LUMINESCENCE. THE FOLLOWING P-ARCH:NC SUB6 H SUB4-CH:CHC SUB6 H SUB4 N:CHAR-P WERE REPORTED (AR SHOWN):P-ME SUB2 NC SUB6 H SUB4, M. 316DEGREES; O-HOC SUB6 H SUB4, M. 252DEGREES; 5,2-CL(HO)C SUB6 H SUB3, M. 290-90.5DEGREES; 5,2-BR(HO)C SUB6 H SUB3, M. 350DEGREES; 3,5,2-BR SUB2 (HO)C SUB6 H SUB2, M. 350DEGREES; AND 2,HYDROXY,1,NAPHTHYL, M. 304DEGREES; ALSO THE FOLLOWING (P-AR-CH:NC SUB6 H SUB4 CH SUB2) SUB2; P-ME SUB2 NC SUB6 H SUB4, M. 245DEGREES; O-HOC SUB6 H SUB4, M. 221.5DEGREES; 5,2-CL(HO)C SUB6 H SUB3, M. 252DEGREES; 5,2-(HO)BRC SUB6 H SUB3, M. 265-6DEGREES; 3,5,2-BR SUB2 (HO)C SUB6 H SUB2, M. 235DEGREES; AND 2,HYDROXY,1,NAPHTHYL, M. 273DEGREES.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--RELATION BETWEEN THE STRUCTURE AND LUMINESCENCE OF AZOMETHINES, DERIVATIVES OF 4,4 PRIME,DIAMINOSTILBENE AND 4,4 PRIME, DIAMINO BIPHENYL

AUTHOR-(02)-AGRACHEVA, YE.S., KUZNETSOVA, T.A., YERSHOV, YU.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2) 379-82

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--LUMINESCENCE SPECTRUM, AZO COMPOUND, CONJUGATE BOND SYSTEM, STILBENE, AMINE DERIVATIVE, BENZENE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1569 STEP NO--UR/0079/70/040/002/0379/0382

CIRC ACCESSION NO--AP0112563

UNCLASSIFIED

2/2 020 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0112927

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INTRODUCTION OF HO OR MEO AS ELECTRON DONOR GROUPS INTO THE 4 OR 5 POSITIONS OF THE ALDEHYDE PART OF P,(SALICYLIDENEAMINO)BENZOICACID LOWERS THE INTENSITY OF LUMINESCENCE GREATLY, OWING TO THE CHANGE OF QUASIQUINOID STRUCTURE OF MOST ESTERS OF THIS ACID INTO THE BENZENOID STRUCTURE CAUSED BY SUCH A GROUP. THE LUMINESCENCE CHARACTERISTICS WERE TABULATED FOR THE AZOMETHINES WHICH WERE PREPD. BY 2 HR HEATING EQUIMOLAR AMTS. ALDEHYDES AND P,AMINOBENZOIC ACID ESTERS IN ETOH OR PROH. THE FOLLOWING I WERE REPORTED (SHOWN ON MICROFICHE). FACILITY: MOSK. TEKST. INST., MOSCOW, USSR.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--STRUCTURE AND LUMINESCENCE OF P,(SALICYLIDENEAMINO) BENZOIC ACID ESTERS WITH AN ADDITIONAL ELECTRON DONOR GROUP IN THE ALDEHYDE COMPONENT

AUTHOR-(03)-SMIRNOV, YE.A., AGRACHEVA, YE.B., GACHKOVSKIY, V.F.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2), 375-9

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--MOLECULAR STRUCTURE, LUMINESCENCE, SALICYCLIC ACID, BENZOIC ACID, BENZENE DERIVATIVE, AMINE DERIVATIVE, ESTER, AZO COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1961 STEP NO--UR/0079/70/040/002/0375/0379

CIRC ACCESSION NO--AP0112927

UNCLASSIFIED

Luminescence

USSR

UDC:547.639

AGRACHEVA, Ye. B., and GACHKOVSKIY, V. F., Moscow Institute of Textiles and Institute of Chemical Physics, Academy of Sciences USSR

"Luminescence of Azomethine Salts"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 1, Jan 70, pp 191-194

Abstract: A series of 33 azomethine hydrochlorides were prepared for the study of their visible luminescence characteristics. The corresponding azomethines with a non-rigid skeleton exhibited only a weak luminescence or none at all, while the above hydrochlorides showed a greatly enhanced, sometimes fairly intensive, luminescence. The increase in luminescence intensity caused by salt formation, which was previously observed by the authors in the azine series, may be explained by the increase in molecular coplanarity. Analytical data, melting points, color, relative luminescence intensity, and wave lengths of luminescence peaks (533-594 nm) were tabulated. The maximum luminescence intensity was exhibited by N-(para-metnoxy)-benzal(para-carbethoxy) aniline monohydrochloride. The remarkable aptitude of some of the azomethines studied to combine with 2-4 moles hydrochloric acid was not completely explained. Formation of the double salt type complexes was presumed to be the most likely mechanism of salt formation, which depends on the polarity of the salt.

1/1

USSR UDC 669.715.018.29:[539.44539.214/7:539.374

SMIRNOV, M. A., KAREVA, N. T., AGOSHKIN, N. G., and TOLSTOV, A. M.

"Investigation of the Relation of the Hardening of Aluminum Alloy D16 to Temperature of Plastic Deformation During Thermomechanical Treatments"

V. sb. Materialy XXIII Nauch. - Tekhn. konferentsii Chelyabinsk. politekhn. in-ta. Sekts. Metallurg. Fak. Chelyabinsk (23rd Scientific-technological Materials Conference of Chelyabinsk Polytechnical Institute, Metallurgical Practice Section Chelyabinsk -- Collection of Works), 1970, p 74 (from Referativnyy Zhurnal -- Metallurgiya, No 6, Jun 71, Abstract No 61631 by V. Bochkareva)

Translation of Abstract: Deformation is realized by rolling in the interval of 20-500°. The greatest increase in the stability properties is provided when the plastic deformation occurs at 150° and lower. The best combination of stability and plasticity is achieved by combining plastic deformation at 150° with 12-15% shrinkage with subsequent age hardening.

1/1

USSR

SKARLAT, I. V., et al., Doklady Akademii Nauk SSSR, Vol 196, No 3, Jan 71, pp 713-716

possible that the peptides are split into even smaller fragments. It is assumed that proteases participate in the breakdown of the primary polypeptide, which gives specificity to this process. Further studies are required to elucidate this point.

2/2

USSR

UDC 576.858

SKARLAT, I. V., KALININA, NO., GINEVSKAYA, V. A., and AGOL, V. I., Moscow State University imeni M. V. Lomonosov and Institute of Poliomyelitis and Virus Encephalitides, USSR Academy of Medical Sciences, Moscow

"Synthesis of Virus-Specific Proteins in Cells Infected with Encephalomyocarditis Virus"

Moscow, Doklady Akademii Nauk SSSR, Vol 196, No 3, Jan 71, pp 713-716

Abstract: Protein synthesis was studied in cells of ascites carcinoma Krebs-II, infected with encephalomyocarditis virus. The cells were infected with C^{14}-labled virus and then subjected to electrophoresis. Comparison studies involving incubation of infected and noninfected cells were conducted. Two virus-specific peptides formed in the infected cell correspond in electrophoretic mobility to structural proteins isolated from mature virus. No evidence of the low-molecular-weight, minor peptide entering into the composition of the virus particle was detected in an extract of the infected cells. The data found confirmed the hypothesis that a high-molecular-weight pepetide (or peptides) is the primary product of the translation of RNA. This high-molecular-weight peptide subsequently splits up into functionally active proteins. In later stages of virus particle formation, it is 1/2

USSR

AGOL, V. I., Molecular Biology of Viruses, Moscow, "Nauka," 1971, 493 pp

4/4

USSR

AGOL, V. I., Molecular Biology of Viruses, Moscow, "Nauka," 1971, 493 pp

USSR

AGOL, V. I., Molecular Biology of Viruses, Moscow, "Nauka," 1971, 493 pp

3/4

USSR

AGOL, V. I., Molecular Biology of Viruses, Moscow, "Nauka," 1971, 493 pp

2/4

USSR

AGOL, V. I., ATABEKOV, I. G., KRYLOV, V. N., and TIKHONENKO, T. I., Molekularnaya Biologiya Virusov, (Molecular Biology of Viruses), Moscow, "Nauka," 1971, 493 pp

Assnotation: This book is in the form of a monography devoted to molecular biology and the molecular genetics of viruses. It correlates contemporary achievements in the study of biochemistry and the ultrafine structure of viruses and discuses in detail the chemical composition of viruses, the chemistry of viral proteins and mucleic acids, as well as other constituents, including enzymes. A detailed examination is also made of the diverse and complex problem of the interaction of viruses and proteins. Special attention in the book is paid to the genetics of viruses.

The book is intended for scientific workers invarious fields: virologists biochemists, microbiologists, biologists, medical and veterenary workers and those employed in agriculture, as well as a guide for senior biology students in university departments and medical institutes.

CONTENTS

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Acc. Nr. AP0049830 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code 4R0035

A

106748b Gas-chromatographic analysis of hydrogen chloride for trace impurities of organic substances. Dudorov, V. Ya.; Aglulov, N. Kh. (Sci. Res. Inst. Chem., Gorki State Univ., Gorki, USSR). *Zh. Anal. Khim.* 1970, 25(1), 162-5 (Russ.). The sensitivity of the detn. of trace org. impurities in gaseous HCl is (1-7) × 10^{-5} vol. %. A column, 4 m long and 4.5 mm in diam., packed with 20% dinonyl phthalate on INZ-600 brick was used with N carrier gas at 2.7 l./hr. Gaseous HCl obtained by the reaction of H_2SO_4 and HCl (soln.) contains (1-2) × 10^{-3} vol. % of CH_4, C_2H_6, C_3H_7, isobutane, and CH_3Cl.

Chaim Weiner

1/1

REEL/FRAME
19801755

7N

USSR

UDC 629.78.076.6

AGLIULLIN, I. N. and SADYKOV, I. KH.

"A Problem in Statistical Optimization of Flight Craft Motion"

Tr. Kazan. aviats. in-ta (Transactions of the Kazan' Aviation Institute), 1970, vypusk 119, pp 92-99 (from Referativnyy Zhurnal-Raketostroyeniye, No 12, Dec 70, Abstract No 12.41.51, by E. R. S.)

Translation: In a homogeneous gravity field a solution is given for the problem of the destruction by a two-stage rocket (R) of target located at a finite number n of intervals adjoining one another and whose sum does not exceed the radius of action of R. The entry of the R at any interval is random and is determined by an assigned probability density. Rocket control and arrangement of the interval bounds minimizing fuel consumption are determined. In spite of the outwardly stochastic formulation, the problem is essentially determinate, since the probabilities of entry into each of n intervals appear only as multipliers in the minimized functionals and are explicit functions only of the interval bounds. A numerical example is solved by the method of fastest descent. Tables: 1. Bibliography: 3 entries.

1/1

ILLEGIBLE

ILLEGIBLE

USSR

AGLADZE, R. I., et al., O sovmestnom elektroosazhdenii khroma i margantsa, Institute of Inorganic Chemistry and Electrochemistry of the Georgian SSR Academy of Sciences, Tbilisi, 1971, 8 pp, a bibliography with 7 entries, No 3613-71 Dep.

The sulfate electrolytes are less convenient for obtaining high-quality galvanic coatings of Cr-Mn alloy. It is more convenient to use chromate electrolytes with $KMnO_4$ added.

2/2

USSR

UDC 621.357.7:669.265'74

AGLADZE, R. I., GVELESIANI, DZH. F., RUBESH, L. L.

"Joint Electrodeposition of Chromium and Manganese"

O sovmestnom elektroosazhdenii khroma i margantsa (Joint Electrodeposition of Chromium and Manganese), Institute of Inorganic Chemistry and Electrochemistry of the Georgian SSR Academy of Sciences, Tbilisi, 1971, 8 pp, a bibliography with 7 entries, No 3613-71 Dep. (from RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6L312 Dep.)

Translation: A study was made of electrodeposition of thick deposits of Cr-Mn alloy from sulfate and chromate electrolytes. It is demonstrated that on introduction of $MnSO_4$ into the sulfate or chromate electrolyte, the codeposition of Mn is directly proportional to the concentration of the Mn ions in the electrolyte. Its maximum content in the alloy reaching 5% is limited by the solubility of $MnSO_4$ in the electrolyte. With an increase in D_c to 30 a/dm^2, the Mn content in the alloy increases to 10%. The alcohol solubility of the VT_K alloy is 35%. It is demonstrated that the chromate electrolytes with the addition of potassium permanganate also insure a chromium-manganese alloy; however, they are not suitable for the deposition of thick deposits as a result of intense destruction of potassium permanganate in the electrolysis.

1/2

USSR

AGLADZE, R. I., Sakartvelos politekhnikuri institute. Shromebi, Tr. Gryz. politekhn. in-t, 8(156), 1972, pp 206-216

precipitation of Cu on the cathode and MnO_a on the anode. 4. Electrolysis of $MnSO_4$ solutions obtained from the leaching of the Mn ore with a H_2SO_4 solution (anolite) resulting in the precipitation of dense MnO_2 on the anode and $Mn(OH)_2$ in the cathodic compartment at temperatures of 80-95°C. 5. Electrolysis of solutions obtained from the above system resulting in the precipitation of metallic Mn on the cathode and MnO_2 on the anode.

2/2

Electrochemistry

USSR

UDC 621.357.1:669.74

AGLADZE, R. I.

"Electrolysis of Manganese Compounds and Problems in the Utilization of the Mineral Resources of Georgian SSR"

Shromebi, Sakartvelos politekhnikuri institute. Shromebi, Tr. Gruz. politekhn. in-t (Sakartvelos Polytechnic Institute. Shromebi, Proceedings of the Georgian Polytechnic Institute), 8(156), 1972, pp 206-216 (from Referativnyy Zhurnal -- Khimiya, No 7, 1973, Abstract No 7L320 by A. D. Davydov)

Translation: Only high-grade manganese ores, feeds which were restricted were used for the smelting of manganese-iron alloys in pyrothermal electric furnaces. In order to use poorer ores, the following processes are suggested: 1. Leaching the Mn ore with sulfuric acid and electrolysis of the obtained solution resulting in the precipitation of metallic Mn on the cathode and the recovery of the acid used in the leaching process. 2. Electrolysis of the aqueous acid solution (at 80-95°C) of $MnSO_4$ obtained from the leaching of the ore with the sulfuric acid solution (anolite) resulting in the precipitation of dense MnO_2 on the anode at temperatures of 80-95°C. 3. Leeching copper and manganese ores resulting in solutions containing a mixture of $MnSO_4$ and $CuSO_4$, the subsequent electrolysis of these solutions resulting in the

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USSR

UDC: 621.373.531.1

AGIZIM, A. M., SPEKTOR, Yu. I.

"A Braked Multivibrator Based on Transistors of Different Conductivity Types"

Otbor i peredacha inform. Resp. Mezhved. sb. (Information Selection and Transmission. Republic Interdepartmental Collection), 1970, vyp. 23, pp 82-85 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7G288)

Translation: The authors consider the circuit of a slave multivibrator based on PNP and NPN transistors. Relationships are found which can be used for optimum calculation of the circuit elements. Bibliography of five titles. Resume.

1/1

2/2 021 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0115716

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE INFLUENCE OF CERTAIN IMPURITIES ON THE GROWTH PROCESS OF SI WHISKERS IS DISCUSSED, AND THE RESULTS OF RADIOACTIVE ANAL. OF THE GROWN CRYSTALS RELATIVE TO THE I AND AU PRESENT ARE PRESENTED. THE AMPUL METHOD WITH THE USE OF CHEM. TRANSPORT REACTIONS WAS EMPLOYED FOR GROWING THE CRYSTALS. THE TOTAL PARTIAL PRESSURE IN THE EXPTS. WAS 80 MM HG, AND THE TEMP. DROP WAS 1100-950DEGREES. THE ADDN. OF A SMALL AMT. OF AU (1-2 MG IN THE FORM OF FOIL WITH A PURITY OF 99.99PERCENT) TO THE WEIGHED PORTION OF SI WEIGHING 2-3 G STIMULATES THE GROWTH OF FILAMENTARY SI CRYSTALS. AT A TRANSFER RATE OF 200-300 MG PER HR, THE GROWING PROCESS CONTINUES FOR 40-50 MIN. IN THIS CASE, A LARGE AMT. OF WHISKER CRYSTALS APPEARS IN THE CRYSTN. ZONE, GROWING ALONG THE ENTIRE SURFACE OF THE AMPUL. FURTHER, CERTAIN IMPURITIES DO NOT ENHANCE THE GROWTH OF THE WHISKERS. THUS, A SMALL AMT. OF O OR H SUB2 O VAPORS ENTIRELY INTERRUPTS EVEN THE SI TRANSFER PROCESS. TO BRING OUT THE ROLE OF AU IMPURITY IN THE GROWTH PROCESS OF SI WHISKER CRYSTALS, IT IS IMPORTANT TO SHOW THE PRESENCE OF AU IN THEIR COMPN. AND TO DET. ITS CONTENT. OF INTEREST ALSO IS THE QUESTION AS TO THE CONTENT OF THE TRANSPORTING AGENT IN THE CRYSTALS GROWN. THESE QUESTIONS ARE DISCUSSED USING THE RADIOACTIVATION ANAL.

FACILITY: INST. YAD. FIZ., TASHKENT, USSR.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--ANALYSIS OF GOLD AND IODINE IMPURITIES IN SILICON WHISKERS -U-

AUTHOR-(03)-AGIYEVSKIY, D.A., MIRANSKIY, I.A., TUSHKOVA, R.YA.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(3), 418-20

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--IODINE, GOLD, CHEMICAL ANALYSIS, SILICON, CRYSTALLIZATION, WHISKER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1897 STEP NO--UR/0363/70/006/003/0418/0420

CIRC ACCESSION NO--AP0115716

UNCLASSIFIED

USSR

UDC: 546.28:548.5

AGIYEVSKIY, D.A., MIRANSKIY, I.A., TUSHKOVA, A.YA., Institute of Nuclear Physics, Ulugbek, Academy of Sciences Uzbek SSR

"Analysis of Gold and Iodine Impurities in Thread-like Silicon Crystals"

Moscow, Neorganicheskiye Materialy, Vol 6, No 5, 1970, pp 841-844

Abstract: The influence of certain impurities on the growth [illegible] crystals and the results of radioactive analysis of crystals [illegible] are reported. It was found that high purity silicon does not form [illegible] crystals with the iodine method of growing, the crystals were grown by the [illegible] method using chemical transfer reactions. Addition of [illegible] (1-2 mg of 99.9% pure foil to 200-400 mg silicon) stimulates rapid growth of silicon filaments. Activation analysis showed that the transporting agent and the growth-stimulating impurity were present in the crystals. The gold content determined was $5 \cdot 10^{-3}$ wt% or $2.5 \cdot 10^{17}$ at cm^{-3}. This exceeds the concentration of gold which can be introduced to the crystal by diffusion, and is [illegible] than that necessary for formation of a solid solution with silicon at the experimental temperature 950°C). The excess is apparently explained by the presence of a eutectic alloy which is necessary for the growth of crystals by the vapor-liquid-crystal mechanism.

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2/2 024 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0102776

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DATA ARE GIVEN OF INVESTIGATION OF FREE AND SUMMATED 17,HYDROXYCORTICOSTEROIDS, NEUTRAL 17,KETOSTEROIDS IN 40 HEALTHY INDIVIDUALS, IN 53 PATIENTS WITH CIRRHOSIS OF THE LIVER AND 13, CHRONIC HEPATITIS. THE AUTHOR REVEALED SUBSTANTIAL SHIFTS IN THE INDICES INDICATING A WEAKENING AND INHIBITION OF THE ADRENAL CORTEX FUNCTION IN PATIENTS WITH CIRRHOSIS OF THE LIVER. IN PATIENTS WITH CHRONIC HEPATITIS THERE WAS FOUND A WEAKENING OF POTENTIAL RESERVES OF THE ADRENAL CORTEX. COMPARISONS MADE IN 15 PATIENTS OF THE VALUES OF URINARY STEROID HORMONAL SUBSTANCES WITH THE LEVEL OF PLASMA CORTICOIDS SHOWED THE PRESENCE OF NORMAL INDICES OF THE LATTER AND A SIMULTANEOUS DROP IN THE LEVEL OF URINARY 17,HYDROXY, AND KETOSTEROIDS. FIGURES OF FREE URINARY 17,HYDROXYCORTICOSTEROIDS WERE INCREASED. HYPOTHESIS FOR EXPLANATION OF THE FOUND SHIFTS ARE GIVEN.

UNCLASSIFIED

1/2 024 UNCLASSIFIED PROCESSING DATE--020CT70

TITLE--SOME INDICES OF THE FUNCTIONAL CONDITION OF THE ADRENAL CORTEX IN PATIENTS WITH CIRRHOSIS AND CHRONIC HEPATITIS -U-

AUTHOR--AGIYENKO, V.D.

COUNTRY OF INFO--USSR

SOURCE--TERAPEVTICHESKIY ARKHIV, 1970, VOL 42, NR 3, PP 24-27

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CIRRHOSIS, HEPATITIS, ADRENAL CORTEX, CORTICOSTEROID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/0814 STEP NO--UR/0504/70/042/003/0024/0027

CIRC ACCESSION NO--AP0102776

UNCLASSIFIED

USSR UDC: 621.317.773(088.8)

VOL'FSON, A. Ye. and AGINSKAYA, S. F.

"Device for Forming Two Sinusoidal Voltages with Controllable Phase Shift"

Avt. Sv. SSSR (Author's Certificate USSR) class 21a, [illegible] No. 27[illegible] [illegible] (from Ref. Zh. Radiotekhnika, No. 3, March 71, Abstract No. 3A[illegible])

Translation: A device is proposed for the formation of two sinusoidal voltages with controllable phase shift, containing a pulse generator, a frequency divider, gating stages, and filters. The device is distinguished in that, to improve the accuracy and stability of the output voltage phase shift, a storage element such as a capacitance is connected to the output of each gating stage, while the gating stage inputs are interconnected through a precision time delay circuit. [illegible]

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R002065900033-6

USSR UDC 621.314.572

AGIBALOV, V. I., DOLGOV, A. M., LIPKIN, A. A.

"A Buffer Memory Device"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 3, Jan 71, Author's Certificate No 291194, Division G, filed 12 May 69, published 6 Jan 71, p 118

Translation: This Author's Certificate introduces a buffer memory device which contains a binary counter and a storage cell. As a distinguishing feature of the patent, the device is simplified by connecting the counter output to an input of the storage cell, the other input of the cell being connected to an auxiliary pulse source of permissible frequency. The output of the storage cell is connected to the output of the device and to a feedback circuit. The output of the device and the feedback circuit are connected to the inputs of all digital places of the counter.

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USSR

UDC 51:621.391

AGIBALOV, G. P., LEVASHNIKOV, A. A.

"Statistical Estimates of Complexity of Boolean Functions, Generating Normal Periodic Sequences"

Tr. Sib. Fiz.-tekhn. In-ta pri Tomsk. Un-te [Works of Siberian Physics and Technology Institute at Tomsk University], No 51, 1970, pp 6-8, (Translated from Referativnyy Zhurnal, Kibernetika, No 6, 1971, Abstract No 6 V405 by G. Blokhina).

Translation: Boolean functions $g(x_1, x_2, \ldots, x_{n-1})$ are studied, for which the sequence $\delta_1, \delta_2, \ldots, \delta_n, \ldots, \delta_j, \delta_{j+1}, \ldots, \delta_{j+n-1}, \delta_{j+n}, \ldots$, can be calculated as the solution of the recurrent equations $\delta_{j+n} = \delta_j + g(\delta_{j+1}, \ldots, \delta_{j+n-1})$, $j = 1, 2, \ldots$, with fixed initial conditions $\delta_1, \delta_2, \ldots, \delta_n$, and is a normal periodic sequence. This article presents the results of a statistical experiment designed to produce quantitative estimates of the complexity of function g, characterized by weight W, expressed as the number of sets in which function g is equal to 1, as well as the number of conjunctions K and the number of letters L which may be encountered in a certain nonredundant disjunctive normal form of function g.

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USSR

AGIBALOV, G. P. and LEVA HNIKOV, A. A., Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-te, No 51, 1970, pp 6-8.

by the weight W which is expressed as the number of sets for which the function g is equal to 1 and also as the number of conjunctions K and the number of letters L that can be encountered in some nonredundant disjunctive normal form of the function g.

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USSR

UDC 51:621.391

AGIBALOV, G. P. and LEVASHNIKOV, A. A.

"Statistical Evaluations of the Complexity of Boolean Functions Generating Normal Periodic Sequences"

Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-te (Transactions of the Siberian Technical-Physics Institute at Tomsk University), No 51, 1970, pp 6-8 (from Referativnyy Zhurnal -- Matematika, No 6, June 71, Abstract No 6V405, by G. Blokhina)

Translation: The authors examine Boolean functions $g(x_1, x_2, \ldots, x_{n-1})$ for which the sequence $\delta_1, \delta_2, \ldots, \delta_n, \ldots, \delta_j, \delta_{j+1}, \ldots, \delta_{j+n-1}, \delta_{j+n}, \ldots$, calculable as the solution of the recursive equations $\delta_{j+n} = \delta_j + g(\delta_{j+1}, \ldots, \delta_{j+n-1})$, $j = 1, 2, \ldots$, for given initial conditions $\delta_1, \delta_2, \ldots, \delta_n$ is a normal periodic sequence.

The article presents the results of a statistical experiment aimed at obtaining quantitative valuations of the complexity of the function g characterized

[redacted], YU. N., et al., Mashchita Metallov, Vol 7, No 5, 1971, pp 534-539

atmosphere. For example, in an industrial atmosphere containing 0.2-0.3 mg/m^3 SO_2, the rate of zinc and cadmium corrosion increases by an order of magnitude and in a heavily contaminated atmosphere with high humidity can reach a level of 100-200 g/m²·year. The difference between the corrosion rates of relatively thick (≥ 20-30 microns) zinc and cadmium coatings and pure zinc and cadmium is not great, generally.

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USSR

UDC 620.193.2

MIKHAYLOVSKIY, YU. N., KLARK, G. B., SHUVAKHINA, L. A., SAN'KO, A. P., GLADKIKH, YU. P., and AGEYKOV, V. V., Insitute of Physical Chemistry, Academy of Sciences USSR

"Calculation of the Atmospheric Corrosion Rate of Zinc and Cadmium Coatings in Different Climatic Areas"

Moscow, Zashchita Metallov, Vol 7, No 5, 1971, pp 534-539

Abstract: Zinc and cadmium are taken as examples in developing a general method of calculatingthe rate of atmospheric corrosion for any climatic zone in which corrosion related both to adsorption and phase moisture layers is taken into account. The meteorological factors involved included relative humidity, air temperature, the time during which the metal was wetted with phase mositure layers, and the content of corrosive admixtures in the atmosphere. Artificial climate chamber studies confirmed the linear dependence of the rate of zinc and cadmium corrosion on the SO_2 concentration (within the range 0.18-5 mg/m^3). The maximum rate of zinc and cadmium corrosion in rural areas in any climatic zone cannot exceed $\sim$10 $g/m^2 \cdot$ year in closed quarters and $\sim$ 30-40 $g/m^2 \cdot$ year out in the open. These values climb sharply when SO_2 is present in the 1/2

Acc. Nr: AP0048276 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code: UR 0181

104165k Adsorption of carbon monoxide on the surface of a tungsten single crystal partially filled with thorium. Ageikin, V. S.; Ptushinskii, Yu. G.; Polozov, B. P. (Inst. Fiz., Kiev, USSR). *Fiz. Tverd. Tela* 1970, 12(1), 221-6 (Russ). The effect of partially filling a W surface with Th on the adsorption of CO was investigated. A large effect was obsd. with a very small amt. of Th on the W surface. In the mechanism of adsorbtion capacity suppression of the W surface, the dominant role is played by the charge state of the Th atoms. The charge of the adsorbing atoms sharply decreases with increasing degree of coverage. Results obtained for W faces with different work functions correlate with the expected dependence of the charge state of adsorbed atoms on the initial work function. A. Libackyj

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REEL/FRAME
19791998

18 N+

UNCLASSIFIED PROCESSING DATE--17JUL70

TITLE--ADSORPTION OF CARBON MONOXIDE ON THE SURFACE OF A TUNGSTEN SINGLE CRYSTAL PARTIALLY FILLED WITH THORIUM -U-

AUTHOR--~~ALEYKIN, V.S.~~, PTUSHINSKIY, YU.G., POLOZOV, B.P.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970 12(1), 221-6

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--GAS ADSORPTION, CARBON MONOXIDE, SINGLE CRYSTAL PROPERTY, TUNGSTEN, METAL SURFACE IMPREGNATION, THORIUM, WORK FUNCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1979/1998 STEP NO--UR/0181/70/012/001/0221/0226

CIRC ACCESSION NO--AP0048276

UNCLASSIFIED

AGEYKIN, D. I.

SO: JPRS 54171
01 OCT 1971

SYSTEMS ENGINEERING ASPECT OF ENGINEERING PSYCHOLOGY

[Article by Doctor of Technical Sciences, Professor D. I. Ageykin; Moscow, Pribory i Sistemy Upravleniya, Russian, No 10, 1970, p 7]

The practical activity of man and the development of scientific thought form a close cause and effect relation. Mechanics, astronomy, materials sciences, electrical engineering and a number of other sciences were born and developed as a necessary condition for the solution of problems with which people were faced during their activity.

The theory of automatic regulation of technical devices was born in this way. Now we are witnesses to the growth of a new science -- systems engineering -- the necessity for which arose from the logical course of technical progress.

This science is just being formulated. There are still arguments as to how to formulate its definition, goals and methods; however, it is now clear that its content will include complex complexes combining numerous technical devices and collectives of people.

An important problem of systems engineering is the development of a method of constructing control systems for the mentioned complexes.

In the light of what has been said, it becomes clear that engineering psychology which formerly occupied a relatively independent position must be considered a component part of systems engineering.

In reality, nowhere do the problems of matching human and machine characteristics arise so acutely as in complex systems characterized by large volumes of data required for control. Two areas of research in engineering psychology are being differentiated more and more clearly: the first of them, the human sciences area -- the study of the psychophysiological possibilities of man -- has been long underway, and it has some solid achievements; in the second area which is just developing -- the systems engineering area -- the problems of human participation in control are being studied.

The principal difference between these two areas is that whereas in the first area man is studied and recommendations are made with respect to his

USSR

AKSENOV, O. A., et al., Voprosy Virusologii, No 3, May/Jun 1973, pp 345-350

(Poly-G)·(poly-C) produced less interferon than did (poly-I)·(poly-C) (160-320 vs. 640-1,280 units/ml). The complex protected mice from lethal doses of AO/PR8 influenza virus, though (poly-I)·(poly-C) was somewhat more effective. (Poly-G)·(poly-C) was most effective when administered within 1 day of infection, while (poly-I)·(poly-C) was most effective when administered 2-3 days prior to the virus. The protective effect was higher for complex produced at 20°C than for that produced at 100°C. (Poly-G)·(poly-C) was nontoxic to white mice even at maximum dose (50 mg/kg), while (poly-I)·(poly-C) was 50 percent lethal at 10-15 mg/kg. Though (poly-G)·(poly-C) was found to be generally less effective than (poly-I)·(poly-C), its lower toxicity makes it a preferable antiviral agent.

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USSR

UDC 615.281.8:547.963.32

AKSENOV, O. A., TIMKOVSKIY, A. L., AGEYEVA, O. N., KOGAN, E. M., BRESLER, S. Ye., SMORODINTSEV, Al. A., and TIKHOMIROVA-SIDOROVA, N. S., All-Union Scientific Research Influenza Institute, Ministry of Public Health USSR, Institute of Nuclear Physics, Academy of Sciences USSR, and Institute of High Molecular Weight Compounds, Academy of Sciences USSR, Leningrad

"Interferonogenic and Antiviral Activity of Double-Stranded Polyriboguanilic and Polyribocytidylic Acid Complex"

Moscow, Voprosy Virusologii, No 3, May/Jun 1973, pp 345-350

Abstract: The interferonogenic and antiviral activity and toxicity of (poly-G)·(poly-C) complexes produced by two methods were compared with those of (poly-I)·(poly-C). Stable complexes were formed both by adding NaCl (0.1M) to an equimolar solution of poly-G and poly-C in 0.005M sodium phosphate buffer (pH 7.4) at 20°C, and by heating the polynucleotide mixture in the same buffer for 10 min at 100°C with subsequent slow cooling. Success of the first method, not encountered in other papers, is probably due to careful purification of the polynucleotides. The double-strand complex stimulated maximum interferon formation in white mice 2-4 hours after intravenous injection. Interferon disappeared after 10-12 hours.
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2/2 016 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100600

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SYSTEM DESCRIBED IS EMPLOYED AT THE ALL UNION RESEARCH INSTITUTE FOR STANDARDIZATION WITH THE AIM OF CLASSIFICATION OF THE MAJOR STRUCTURAL UNITS OF THE INSTITUTE IN ACCORDANCE WITH THEIR SCIENTIFIC OBJECTS. THE PRINCIPLES UNDERLYING THE SYSTEM OF NUMERICAL CODING OF RESEARCH WORKS ARE EXPLAINED.

UNCLASSIFIED

1/2 016 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--CERTAIN APPLICATIONS OF COMPUTER IN PLANNING OF RESEARCH WORK -U-

AUTHOR-(02)-MOROZOV, A.V., AGEYEVA, N.V.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 2, PP 77-79

DATE PUBLISHED-------70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--R AND D PLANNING, COMPUTER APPLICATION, R AND D ORGANIZATION STRUCTURE, CODING, R AND D MANAGEMENT ORGANIZATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/2035 STEP NO--UR/0422/70/000/002/0077/0079

CIRC ACCESSION NO--AP0100600

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119559

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SPECTROMETRIC STUDY OF THESE SYSTEMS OF NDCL SUB3 IN VARIOUS PROPORITONS SHOWED THAT A MONOTARTRATE OF ND WITH FORMULA NDZ PRIME POSITIVE IS FORMED, THE PK OF STABILITY CONST. BEING 4.66. IN A SYSTEM CONTG. TARTARIC ACID (H SUB2 Z) AND THE DI-NA SALT OF EDTA (H SUB4 A), A MIXED COMPLEX IS FORMED WITH COMPN. OF NDAZ PRIME3 NEGATIVE AND STABILITY CONST. 1.03 TIMES 10 PRIME2.

FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--COMPOSITION AND STABILITY OF A MIXED COMPLEX FORMED BY NEODYMIUM WITH EHTYLENEDIAMINETETRAACETIC AND TARTARIC ACIDS -U-

AUTHOR-(04)-DOBRYNINA, N.A., MARTYNENKO, L.I., AGEYEVA, L.V., SPITSYN, V.I.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 477-9

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--COMPLEX COMPOUND, NEODYMIUM COMPOUND, ETHYLENEDIAMINE, ACETIC ACID, TARTARIC ACID, SPECTROMETRIC ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0647 STEP NO--UR/0062/70/000/002/0477/0479

CIRC ACCESSION NO--AP0119559

UNCLASSIFIED

USSR UDC 621.382.2

AGEYEVA, L. A., KOVALEVA, N. K., and LOGINOVA, L. B.

"Production and Study of Planar Contacts in Gunn Diodes"

Izv. Leningr. elektrotekhn. in-ta (Bulletin of the Leningrad Electrical Engineering Institute), 1970, Issue 96, pp 60-63 (from RZh-Elektronika i yeye primeneniye, No 8, August 1971, Abstract No 8B134)

Translation: The results are presented of an experimental study of the resistance of contacts for coplanar Gunn-effect diodes. Alloys of AgSn, NiIn, and AgGeIn were used as material for the contacts. The resistance of GaAs contacts with an electron concentration of $\sim 10^{15}$ cm^{-3} amounted to $\sim 5 \cdot 10^{-2}$ ohm.cm^2. A. Ye.

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UDC 669.71.018.9

AGEYEVA, G. N., ZOLOTOREVSKIY, V. S., TELESHOV, V. V., TSAREGORODTSEVA, A. I.

"Influence of Homogenization Modes of Ingots on Structure and Properties of Semi-finished Goods of Alloys in the Al-Zn-Mg System with Zn/Mg $\approx$2"

Metallurgiya [Metallurgy -- Collection of Works], No. 13, Leningrad, Sudostroyeniye Press, 1970, pp. 113-120. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 G171 by the authors).

Translation: Combined analysis of the structure and properties of ingots and semifinished goods of an alloy in the Al-Zn-Mg system with ratio of Zn/Mg $\approx$2 establishes the influence of homogenization modes on the final structure and properties of semifinished goods of this alloy. An accelerated mode of homogenization of ingots of the alloy Al-Zn-Mg with Zn/Mg $\approx$2 is recommended for industrial testing. 2 figs; 5 tables; 6 biblio refs.

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AGEYEV, V.I., [illegible], A.A.

"Method Of Computation Of The Power Factor Of Frequency Converters With Direct Coupling"

Preobrazovatel'naya tekhnika. Nauchno-tekhn. sb. (Converter Technology. Scientific-Technical Collection), 1970, No 1, pp [illegible] (from RZh--Elektronika i yeye primeneniye, No 8, August 1970, Abstract No 8B440)

Translation: A method is considered for computing the power factor of frequency converters with direct coupling which have a large value of the ratio of the frequencies at the input and output of the converter. The computation is performed both on the basis of analytically defined forms of the output current curves, and with the use of oscilloscopic data. The precision of the method is sufficient for engineering computations. 2 ill. Summary.

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2/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0128717

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PHSO SUB2 N:PPHCL SUB2 (0.005 MOLE) IN 25 ML C SUB6 H SUB6 WAS TREATED WITH 0.23 G NA IN 15 ML HEXYL ALC. 12 HR TO GIVE PHSO SUB2 N:PPH(OC SUB6 H SUB13) SUB2 (I). I (0.001 MOLE) WAS HEATED 3 HR WITH 15 ML 0.4N AQ.-ALC. NAOH TO GIVE 60PERCENT PHSO SUB2 N(NA)P(O)PH(OC SUB6 H SUB6, DISTRIBUTION CONST. BETWEEN C SUB6 H SUB6 AND H SUB2 O, AND DISSOCN. CONST. (2.44) OF THE FREE ACID WERE DETD. FACILITY: KIIV. DERZH. UNIV., KIEV, USSR.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--EXTRACTIVE PROPERTIES OF HEXYL PHENYLSULFONAMIDO PHENYLPHOSPHONATE -U-

AUTHOR-(05)-SHEVCHENKO, F.D., KUZINA, L.A., AGEYEV, V.A., GULIK, G.A., NARBUT, A.V.

COUNTRY OF INFO--USSR

SOURCE--DOPOV. AKAD. NAUK UKR. RSR, SER. B 1970, 32 (3), 261-3

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--BENZENE DERIVATIVE, SULFONAMIDE, ORGANIC PHOSPHOROUS COMPOUND, SOLUBILITY, DISSOCIATION CONSTANT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1303 STEP NO--UR/0442/70/032/003/0261/0263

CIRC ACCESSION NO--AT0128717

UNCLASSIFIED

2/2 012 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0105350

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DECAY OF PRIME194 AU (39 HR), AND PRIME188 IR (41 HR) WAS STUDIED WITH A 4 PI BETA PRIME POSITIVE-GAMMA COINCIDENCE SPECTROMETER. THE BETTA PRIME POSITIVE SPECTRUM OF BOTH ISOTOPES CONSISTS OF 2 COMPONENTS. THEIR UPPER ENERGY LIMITS ARE 950 PLUS OR MINUS 30 AND 1210 PLUS OR MINUS 20 KEV FOR AU, 1030 PLUS OR MINUS 50 AND 1650 PLUS OR MINUS 30 KEV FOR IR. THE HIGHER LIMITS WERE KNOWN FROM EARLIER PAPERS. FACILITY: KIEV. GOS. UNIV. IM. SHEVCHENKO, KIEV. USSR.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--POSITRON DECAY OF GOLD-194 AND IRIDIUM-188 -U-

AUTHOR-(03)-AGEYEV, V.A., MITROKHOVICH, N.F., FEOKTISTOV, A.I.

COUNTRY OF INFO--USSR

SOURCE--IAV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(1), 201-3

DATE PUBLISHED-------70

SUBJECT AREAS--NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--GOLD ISOTOPE, IRIDIUM ISOTOPE, COINCIDENCE COUNTING, RADIOACTIVE DECAY SCHEME, POSITRON, BETA SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0276 STEP NO--UR/0048/70/034/001/0201/0203

CIRC ACCESSION NO--AP0105350

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